

Lab: Testing for Anions

Name _____

Period _____

Procedure: For each anion test, use a squirt of each chemical in a test tube. Record your observations after each addition of a chemical.

To test for:	Add:	Observations:
GROUP 1 – Precipitate w/ BaCl₂		
Sulfate, SO ₄ ⁻²	BaCl ₂ and HCl	
Carbonate, CO ₃ ⁻²	BaCl ₂ and HCl	
Phosphate, PO ₄ ⁻³	BaCl ₂ and HCl	
	If no reaction, proceed to Group 2	
GROUP 2 – Precipitate w/ AgNO₃		
Phosphate, PO ₄ ⁻³	AgNO ₃	
PO ₄ ⁻³ (confirming)	Ammonium molybdate & heat in water bath	
Chloride, Cl ⁻	AgNO ₃ , NH ₄ OH, HNO ₃	
Bromide, Br ⁻	AgNO ₃ , NH ₄ OH, HNO ₃	
Br ⁻ (confirming)	1 squirt 3% starch, then 1 or 2 DROPS NaOCl (bleach)	
Iodide, I ⁻	AgNO ₃ , NH ₄ OH, HNO ₃	
I ⁻ (confirming)	1 squirt 3% starch, then 1 or 2 DROPS NaOCl (bleach)	
GROUP 3 - Soluble group, will not precipitate		
Nitrate, NO ₃ ⁻¹	FeSO ₄ and concentrated H ₂ SO ₄ – after adding FeSO ₄ , tilt the test tube and run several drops acid down the side. Look for the brown ring at the bottom of the test tube.	

